

Growing and Selling Native and Naturalized Perennials for Pollinators

By Jane Sorensen

Northeast Pollinator Plants, owner
Northeast Wild Seed Collectors, coordinator
River Berry Farm, co-owner

Echinacea purpurea
Purple Coneflower Perennial River Berry Farm

May	June	July
☀️	🦋	🦋

Aug. Sept. 🦋 🦋
Height: 2'-5'
Hardy: 3-8
Soils: Dry - Medium
Well-known and loved, with a long-blooming season, a bit short-lived, but so nice, worth replanting every so many years.
Native to VT, NY, MA, CT

Growing and Selling Native and Naturalized Perennials for Pollinators

What we'll cover:

- Who am I?
- Why I'm telling you?
- Briefly: Who are the pollinators/status/needs?
- Why native and naturalized plants?
- Things to consider when selecting plants for pollinators?
 - True native vs. cultivars.
 - Flowering time.
 - Providing for both foraging and host plants.
 - Diversity and quantity.
 - Checking native status and avoiding rare/endangered plants.
- Seed collecting/stratifying/seeding.
 - Local ecotype seeds.
- Continued...next slide.

Growing and Selling Native and Naturalized Perennials for Pollinators

What we'll cover (continued):

How we grow and sell on-farm and on-line:

- Seeding/Germinating/Transplanting.
- Pots/Trays.
- On-Farm “Marketing Information” and Sales.
- On-Line “Marketing Information” and Sales.
 - Shipping On-Line Orders.
- Opportunities.
- Questions??
- **What we WON'T cover is a plant list!! See handout of Pollinator Plant Palette, or if all gone, sign up for emailed copied.**

Who Am I?

- River Berry Farm, co-owner
 - An organic small fruit and vegetable farm in Fairfax, VT, (since 1991), where we also sell bedding plants, fruit trees and shrubs, native and ornamental shrubs, and pollinator plants (since 2012).
- Northeast Pollinator Plants, owner
 - A regional web-based nursery of native and naturalized perennials of special value to native bees, shipping to New England and New York states (since 2015).
- Northeast Wild Seed Collectors, coordinator
 - A group of passionate native plant advocates and volunteers who utilize a website to coordinate efforts in collecting local ecotype seeds from New England and New York states of plants that are of special value to pollinators and other wildlife (since 2017).
- UVM Adjunct
 - Mostly taught Landscape Design for Pollinators (2009-2020).



....why my pollinator plant passion

- As we domesticate the landscape it is up to us, domesticators, to ensure our landscapes provide habitat for wildlife; especially the pollinators who are the foundation of ecosystems.
- It is estimated about 88% of all flowering plants and 35% of the global plant-based food supply relies on pollinators to be successful.



and Why Am I Telling You? (cont.)

- As greenhouse growers, nursery and garden center owners, educators and researchers, you all are providing a great service by advocating for and making available the very plants the pollinators need,
- AND... as you know, folks are ready to buy these plants!!
- For example: Our on-farm and on-line sales of pollinator plants have each increased an average of 20-25%/year.

Briefly, who are the Pollinators?

- **Bees** are, by far, the most important pollinators for their quantity, quality and diversity of pollination services.
- **Wasps** are important but less efficient, but very valuable for pest control.
- **Flies** are important for many fruit and with **Beetles** help extend the pollinator season as they are more cold-tolerant.
- **Butterflies** and **Moths** are simply less efficient but critical for many specialized interactions.
- **Hummingbirds** are important specialists for natural biodiversity, but not significant for NE crops pollination.

Status of Native Pollinators



Native Pollinator Decline:

- “A recent analysis by the Xerces Society and the International Union for Conservation of Nature (IUCN) found that: 28% of bumble bees in Canada, the United States, and Mexico are in an IUCN Threatened Category.
- According to NatureServe, 50% of leafcutter bee species and
- 27% of mason bee species are “at risk”.

Photo Credit: Kent McFarland: Double-Banded Bumble Bee.
Rugose-Fronted Resin Bee.

IUCN: International Union for Conservation of Nature, global

Solitary Bees

- Over 90% of the 4,000 some North American bee species are solitary bees.
- A solitary female bee constructs and stocks her own nest.
- Her life cycle is about a year, though the adult stage lasts only about three to six weeks.
- Not all solitary bee species reach the adult/foraging stage at the same time of year, so it is critical to **provide constant overlapping flowering of different flower shapes and colors all season.**

Solitary Bees (about 90% of bees)

Foraging Habits

Factors affecting solitary bee foraging habits

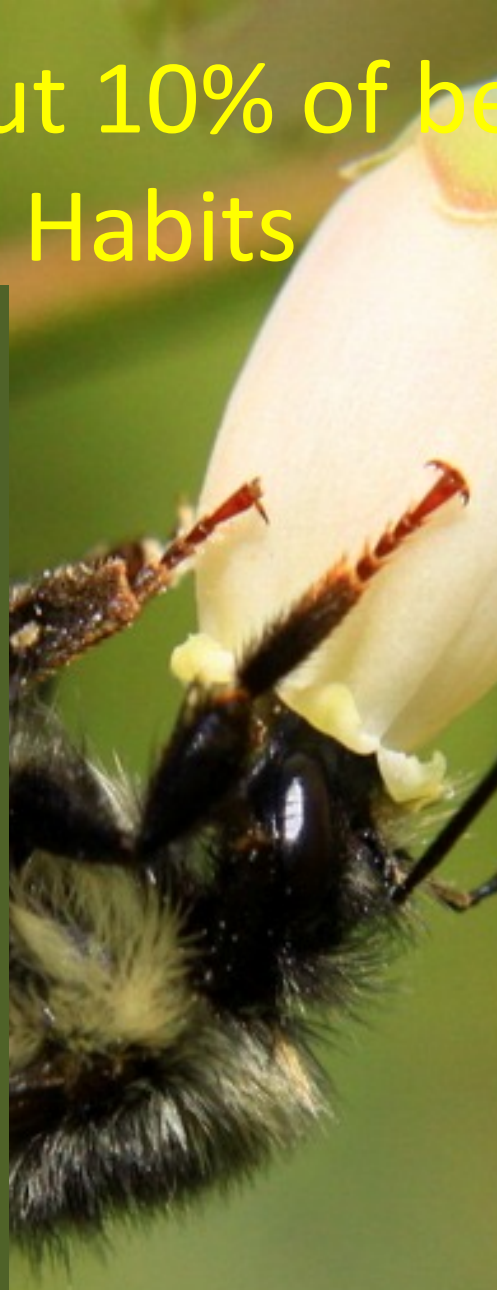
- About 75% of native bees are **Generalists**, which gather from a wide range of flowers, while the rest are **Specialists** whose life cycle are closely tied to a single plant family.
- **Flight Distances** are related to **bee size**, ranging from a couple hundred feet to a mile or more.
- **Tongue Length**, short or long, greatly influences flower preferences.
- **Bee Vision**, bees prefer blue, purple, yellow, or white and can't see much red, they see shorter wavelength.
- Some bees also forage for **nest-building supplies** including clay, resin or leaves.



Social Bees (about 10% of bees)

Foraging Habits

- Social bees, which include bumblebees, honeybees and some sweat bees, are **generalists**, feeding from a range of flowering species.
- **Each foraging trip** however is usually focused on a **single flower species**, so grouping flower species increases their efficiency.
- **Bumble bees are important pollinators** as they:
 - Have the **longest foraging season**, due to many generations per summer, from early willows to the late goldenrod. So again, **provide overlapping and continuous flowering.**



Bumble bees – cont.

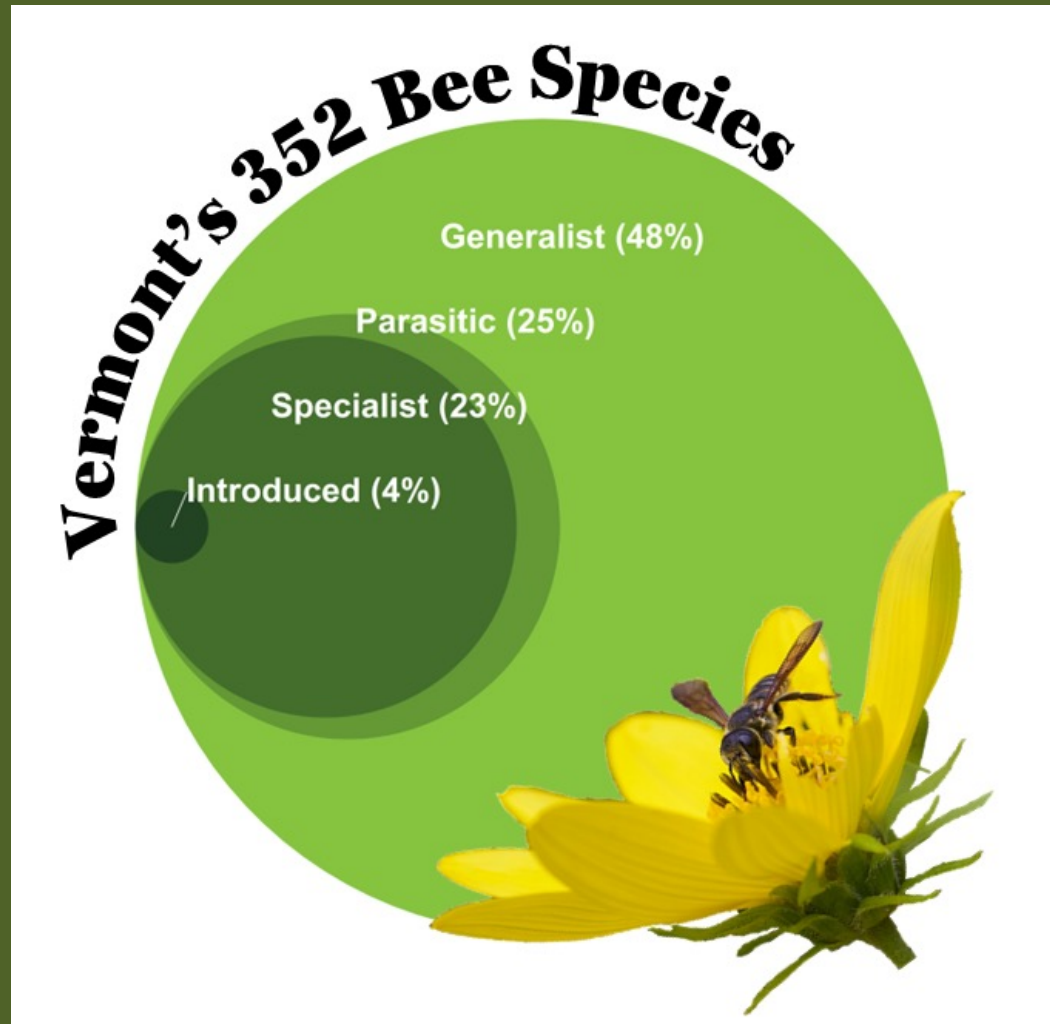
- Can tolerate the **greatest range of temperatures** and precipitation.
- Utilize **buzz pollination** which releases abundant pollen and is critical for pollination of blueberries, cranberries, peppers and tomatoes.
- Will fly **a mile +** for forage trips.

Generalist and Specialist Bees

“**Generalists**, as the name implies, visit a variety of plants to gather pollen.

Specialists, on the other hand, have evolved a relationship with one or only a few plant species, emerging from their nests at the same time their host plant(s) begin to flower. Roughly a third of our bees are specialists.”

Lynn Richardson, Audubon Society.



Vermont Center for Ecostudies has developed State Conservation Ranks, finding >30% Critically Imperiled or Imperiled.

Why Native Plants?

- “**Native plants** are undoubtedly the best source of food for pollinators, because plants and their pollinators have coevolved.” Xerces Society.
- “Tallamy reveals the unbreakable link between native plant species and native wildlife - native insects cannot, or will not, eat alien plants. When native plants disappear, the insects disappear, impoverishing the food source for birds and other animals.” Homegrown National Park, Douglas Tallamy, retired entomology professor, Univ. of Delaware, author of *Bringing Nature Home* and *Nature's Best Hope*. He's escaped the "ivory tower", as he saw his message needed the immediate attention of the landowners/managers, and **plant providers, (that's us!!)** of the larger landscape...



Why We Add Some Naturalized Plants

We include many long-term naturalized plants in our offerings that are known as valuable to native pollinators and feel this is also a good hedge for climate change as insect species are much more mobile than plants.

Native vs. Cultivars

- Annie White's, a UVM doctoral researcher, sought to improve flowering plant selection for pollinator habitat enhancement by **comparing "true" native plants to native cultivars** (human-bred) in terms of their ability to attract and support native pollinators.
- Several other researchers have been looking at this.
- Results: It's complicated, but the pollinators did greatly tend to favor true natives.



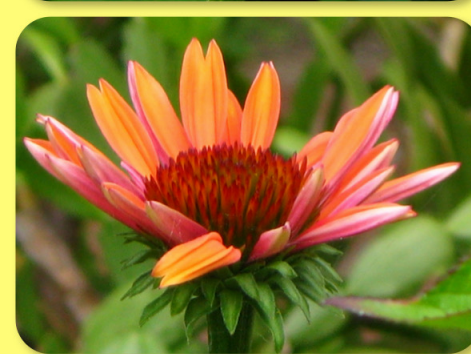


Native vs. Cultivar

Much more research is needed to determine if **cultivars** of natives can adequately support pollinator populations, considering their potentially different:

- Phenology – timing of flowering and timing of adult pollinator foraging,
- Flower color, shape and odor, and
- Quality and quantity of pollen and nectar.

My approach in selecting plants for pollinators, while the “court is out”, is to encourage use of true native plants. Too much we don’t know!



Food Through the Flowering Season

Wildflowers are critical to provide constant and overlapping forage for pollinators.

Plant Name	May	June	July	Aug.	Sept.	Sun/Shade	Value			Notes	
GC=Crowd Cover	Info. Source: Xerces, Lady Bird Johnson Wildflower Center, USDA Plants					Be	But	Hun	Host		
PERENNIALS for Gardens long-lasting, minimal spreading and reseeding											
Fragaria virginiana GC	4"-6"		fruit	wild strawberry		sun/part	X	X		X	tasty ground cov.
Penstemon digitalis	3'-5'		beardtongue			sun	X	X	X		clump, butt mag.
Geranium maculatum		1'-1.5'	cranesbill			sun/part	X	X			some self-seeding
Aruncus dioicus		3'-6'	goatsberad			sha/part		X		X	statuesque
Tradescantia ohienis		2'-3'		Ohio spiderwort		par/sha	X	X			moist, shade
Actea racemosa			4'-6'	black cohosh		sha/part	X	X			sweet scent
Coreopsis lanceolata			1'-2'	coreopsis		sun	X	X			a bit short-lived
Oenothera pilosella			1'-2'	meadow evening primrose		sun	X				mat-form, spread
Penstemon hirsutus			1.5'-2'	hairy beardtongue		sun/sha	X	X	X	X	some self-seeding
Ratibida pinnata			3'-5'	yellow coneflower		sun	X	X			some self-seeding
Echinacea purpurea			2'-5'	purple coneflower		sun/part	X	X	X		a bit short-lived
Baptisia australis			4.5'-5.5'	blue wild indigo		sun/part	X				love this
Eryngium yuccifolium			4'-5'	rttsnake mstr		sun	X	X			excellent for pollins
Allium cernuum			1'-1.5'	nodding onion		sun/part	X	X			some self-seeding
Dalea purpurea			1'-3'	prairie clover		sun	X				some self-seeding
Liatriis spicata		blazing star		2'-4'		sun	X	X	X		nice cut too
Monarda didyma		scarlet beebalm		2'-4'		sun/part	X	X	X		spreads but value
Eupatiadelphus maculatum		joe-pye weed		3'-6'		sun/part	X	X			common, valuable
Eutrochium purpureum		sweet joe-pye weed		5'-7'		sun/part	X	X			tolerates moister
Agastache foeniculum		anise hyssop		3'-5'		sun/part	X	X	X		great plant
Salvia azurea		blue sage		3'-5'		sun	X	X			borderline hardy
Monarda fistulosa		wild bergamot		2'-4'		sun/part	X	X	X		spreads but value
Monarda media		purple bergamot		2'-3'		sun/part	X	X	X		deep purple
Pycnanthemum tenuifolium		slender mountain mint		2'-3'		sun/part	X	X			spreads but value
Senna hebecarpa		wild senna		3'-7'		sun/part	X	X	X	X	some self-seeding
Solidago caesia		blue-stemmed goldenrod		1.5'-3'		sun/part	X				well-behaved
Helenium autumnale		sneezeweed		3'-5'		sun	X	X			statuesque
Helianthus giganteus		giant sunflower		5'-10'		sun	X				loose, tall
Liatriis apsera		rough blazing star		2'-3'		sun	X	X	X	X	slow spreading
Vernonia noveborancesis		new york ironweed		4'-6'		sun	X	X			borderline hardy
Chelone glabra		white turtlehead		2'-3'		sun/sha		X	X	X	can do shade
Eupatorium perfoliatum		common boneset		4'-6'		sun/part	X	X			common, valuable
Symphyotrichum novae-angliae		new england aster		3'-6'		sun	X	X		X	great late color
Symphyotrichum cordifolium		blue wood aster		2'-5'		sun/sha	X	X			can do shade
Symphyotrichum ericoides		heath aster		1'-3'		sun		X	X		delicate
Symphyotrichum laeve		smooth blue aster			2'-4'	sun	X	X			great late color
Synphyotrichum novi-belgii		new york aster			3'-4'	sun	X	X		X	great late color

Food Through the Flowering Season

Wildflowers are critical to provide constant and overlapping forage for pollinators.

VT Pollinator Habitat Plant Palette

updated 22 Dec 22

Jane Sorensen Northeast Pollinator Plants, VT

Plant Name	May	June	July	Aug.	Sept.	Sun/Shade	Value	Bees	Butterflies	Hummingbirds	Hosts	Notes	
GC=Ground Cover	Info. Source: Xerces, Lady Bird Johnson Wildflower Center, USDA Plants												
PERENNIALS for Naturalized Gardens and/or Meadows short-lived, vigorous spreading and/or reseeding													
Dicentra cucullaria	.5'-1'	dutchman's breeches				part/sha	X					white bleeding hrt	
Polemonium reptans	1'-1.5'	creeping jacob's ladder				sun	X					prolific reseeder	
Prunella vulg.ssp lanceo. GC	.5'-1.5'	self-heal				sun/part	X	X				nice,low,early/flow.	
Antennaria plantag. GC	.5 -1'		pussytoes			sun/part						attracts benefic. Ins.	
Erigeron pulchellus	1.5'-2'		robin's plantain			sun/part	X	X				avoid rich soils	
Osmorhiza claytonnii	1'-3'		sweet cicely/clayton's sweet root			shade/part	X					moist, shade	
Viola sororia GC	.5'-.75'		common blue violet			sun/part	X					great ground cover	
Zizia aurea		1.5'-3'	golden zizia			sun	X	X		X		prolific reseeder	
Caltha palustris GC	.5'-1'		marsh marigold			sun/shade	X					moist, sun-shade	
Aquilegia canadensis		2'-3'		canada columbine		sun/part	X	X	X	X		short-lived/reseeds	
Echinacea pallida		2'-3'		pale purple coneflower		sun/part	X	X				narrow petals, reseed	
Verbena stricta		wooly verb	1.5'-4'			sun	X	X		X		prolific reseeder	
Geum rivale		water aver.	.75'-1'			sun/part	X					boggy meadows	
Achillea millefolium		yarrow	2'-3'			sun	X	X				tends to flop	
Rudbeckia hirta		black-eyed	2'-3'			sun	X	X				short-lived/reseeds	
Mimulus ringens		monkeyflo	1'-3'			sun/part	X	X		X		moist-wet, rain gard.	
Anaphalis margaritacea GC		pearly everlastin	1'-3'			sun/part		X				grey foliage	
Ascepias syriaca		common milkwe	2'-3'			sun/part	X	X		X		host to Monarchs	
Asclepias exaltata		poke milkweed	3'-5'			sha/parr	X	X				dappled light	
Asclepias incarnata		swamp milkweed	2'-4'			sun/part	X	X		X		host to Monarchs	
Drymocalis [Potentilla] arguta		tall cinquefoil	2'-3'			sun/part	X					great for pest contr.	
Chamerion angustifolium		fireweed		2'-3.5'		sun/part	X	X		X		prolific reseeder	
Desmodium canadense		showy tick trefoil	3'-5'			sun/part	X	X	X	X		prolific reseeder	
Euthamia graminifolia		flat-top goldenrod	2'-3.5'			sun	X					a billowy goldenrod	
Apocynum cannabinum		indian hemp/dogbane	2'-4'			sun/part	X	X				toxic to dogs!	
Thermopsis vilosa		carolina bushpea	3'-5'			sun	X	X				like a yellow lupine	
Doellingeria umbellata		flat-topped aster	5'			sun/part	X	X		X		moist-wet,early aster	
Lysimachia ciliata		fringe loosestrife		1'-2'		sun/part	X					wet,aggressive spr	
Grindelia squarrosa		curlycup gumweed		.5'-3'		sun/part	X					bees of great concern	
Salvia azurea		blue sage		3'-5'		sun	X	X				nice blue	
Helianthus strumosus		pale-leaved sunflower		5'-8'		sun/part	X	X				aggressive spread	
Rudbeckia laciniata		green-headed coneflower		2'-9'		sun/part	X					aggressive spread	
Symphyotrichum punideum		swamp aster		6'-8'		sun	X	X				moist-wet	
Verbena hastata		blue verbena		2'-6'		sun	X	X		X		self-seed/spread	
Lobelia cardinalis		cardinal flower		2'-4'		sun/part		X	X			short-lived/reseeds	
Scutellaria lateriflora		mad-dog scullcap		2'-3'		sun/part	X					moist, beautiful	
Solidaga speciosa		showy goldenrod		2'-3'		sun	X	X				showiest gldnrod	
Helianthus maximiliani		maximilian sunflower		3'-10'		sun	X					aggressive spread	
Eurybia macrophylla		big-leaf aster			2'-4'	sun/sha		X		X		a woodland beauty	
Solidago canadensis		canadian goldenrod			3'-6'	sun/part	X	X				self-seed/spread	

Food Through the Flowering Season

Native grasses are important as larval host plants and nesting and herbs for foraging.

VT Pollinator Habitat Plant Palette

updated 22 Dec 22

Jane Sorensen Northeast Pollinator Plants, VT

Plant Name	May	June	July	Aug.	Sept.	Sun/Shade	Value	Bees	Butterflies	Hummingbirds	Host	Notes
<i>Info. Source: Xerces, Lady Bird Johnson Wildflower Center, USDA Plants</i>												
GRASSES for Gardens - long-lasting, minimal spreading and r												
Carex stricta		1'-3'	upright sedge				X					moist to in water
Deschampsia cespitosa		1'-3'	tufted hair grass				X	X		X		medium-wet, alkali.
Sporobolus compositus		sand drops	3'-5'				X					Long blooming grass
Panicum virgatum		switch grass		3'-6'				X		X		gorgeous plant,
Schizachyrium scoparium		little bluestem			2'-4'		X	X		X		gorgeous plant,
Andropogon gerardii		big bluestem					X	X		X		reseeds. cut winter
GRASSES for Naturalizing, Cottage Gardens and/or Meadows short-lived, vigorous spreading and/or reseeding												
Koeleria macrantha		1'-2'	junegrass				X					short-lived, reseeds,
Zizania aquatica		2'-8'			wild rice							
Tridens flavus		purpletop tridens			2.5'-7'		X			X		Part shade, massing
BEE LAWN: overseed lawn with clovers or replant with fescues and clovers, mow monthly at 3"-4". Source: Mary Meyer, UMN												
Trifolium repens		.25'-.5	white dutch clover			sun/part	X					spread, bees love
Trifolium hybridum			.5'-1.5'		alsike clover	sun/part	X					spread, bees love
Festuca ovina, Festuca rubra and, Festuca brevipila - Fescue mix, good for less mowing						sun/part						mow monthly, 3"-4"
Scilla siberica	.25'	siberian squill				sun/part	X					early flowering bulb
Crocus sieberi Tricolor	.25'	sieber's crocus										early flowering bulb
Thymus vulgaris (Zone 5-9)		2'-2.5'	english thyme			sun/part	X	X				in warm microclim.
Prunella vulgaris			.5'-1'		self-heal	sun/part	X					self-heal, bees love
HERBS for Gardens, Containers and Beds - need to let flower for pollinators, generally native to Europe.												
Allium schoenoprasum		1"-1.5'	chives			sun/part	X	X				perennial, long last
Thymus vulgaris (Zone 5-9)		2'-2.5'	english thyme			sun/part	X	X				in warm microclim.
Symphytum officinale	comfrey	3'-5'				sun/part	X	X				Tap root, spreading
Nepeta faassenii	catmint	1'-2'				sun	X	X	X			great mass, showy
Salvia officinalis	common sage	2'-2.5'				sun/part	X	X				bees love
Origanum majorana	sweet marjoram	1'-2'				sun/part	X	X				grow as an annual
Anethum graveolens	dill	1'-3'				sun/part	X	X				grow as an annual
Borage officinalis	borage	2'-3'				sun	X	X				reseeds readily
Foeniculum vulgare	fennel	4'-6'				sun	X	X				reseeds readily
Lavandula spp. (Zone 5-7)	lavender	1'-3'				sun/part	X	X				in warm microclim.
Melissa officinalis	lemon balm	1.5'-3'				sun/part	X	X				spreads, contain it
Mentha spp.	mints	.5'-3'				sun/part	X	X				spreads, contain it
Origanum vulgare	wild oregano		1'			sun/part	X	X				spreads, contain it
Allium tuberosum	garlic chives				1'-2'	sun/part	X					garlicky , bees love.
Angelica archangelica	garden angelica				4'-6'	sun/part	X	X				biennial, moist,

Food Through the Flowering Season

Though generally not as good a source of nectar and pollen, some non-native annuals can add some food sources and be attractive to pollinators.

VT Pollinator Habitat Plant Palette

updated 22 Dec 22

Jane Sorensen Northeast Pollinator Plants, VT

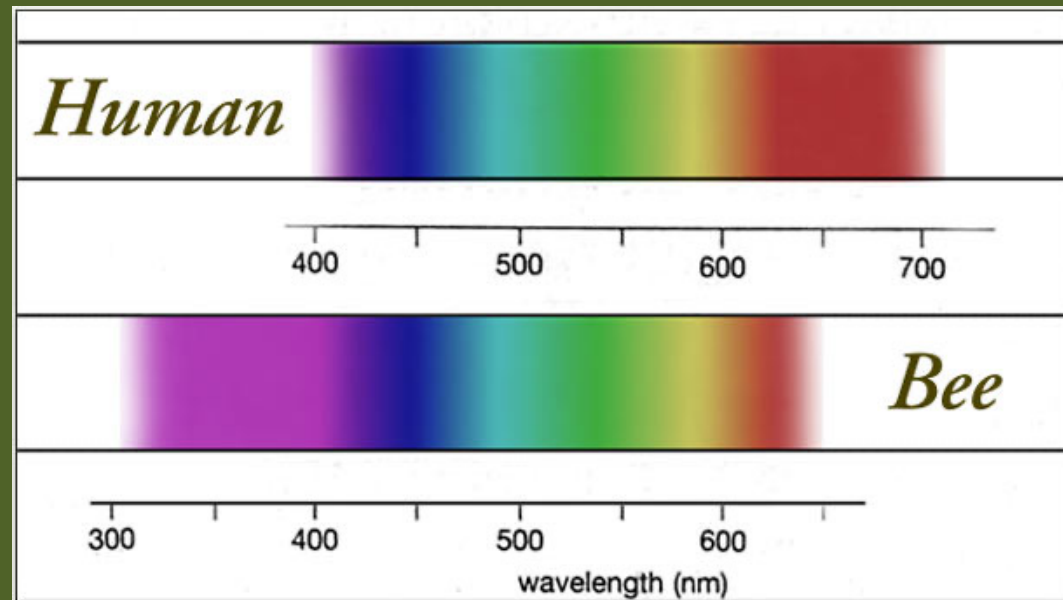
Plant Name	May	June	July	Aug.	Sept.	Sun/Shade	Value			Notes
	<i>Info. Source: Xerces, Lady Bird Johnson Wildflower Center, USDA Plants</i>						Bed	But	Hun	Host
Annuals for Gardens, Containers and Beds - non-native, but plentiful pollen or nectar to provide extra foraging.										
Lobularia maritima	.25'-.75'		alyssum			sun/part	X			sweet odor, bee mag.
Salvia coccinea	1'-2'		salvia			sun/part	X	X	X	reseeds, nice plant
Lantana camara	1'-2'		lantana			sun		X		butterflies will flock!!
Zinnia spp.	.5'-2'		zinnia			sun	X	X		all colors, bees love
Cuphea spp.	.5'-2'		wi			sun/part	X	X	X	hummingbirds!!!
Dianthus spp.	.25'-1.5'		garden pinks			sun/part	X	X	X	beauty!, attracts all
Dimorphotheca (Osteospermum)	1'-1.5'		african daisy			sun/part	X	X		cool season flowers
Centaurea cyanus	1'-3'		batchelor's buttons			sun	X	X		avoid invas.per.
Calendula officinalis	.5'-1.5'		calendula			sun	X	X		attracts beneficials
Portulaca oleracea	.25'-.5'		portulaca			sun	X	X		hot dry sun,
Cleome hassleriana	1'-4'		cleome			sun	X	X	X	hot, dry sun,
Dahlia spp.	1'-4'		dahlia			sun/part	X	X	X	lots colors, easy
Tagetes	.5'-4'		marigold			sun		X	X	butters/hum
Helianthus (NO treated seeds)	.5'-8'		sunflowers			sun	X	X		hot, dry, sun, bees
Amaranthus spp.	1'-7'		amaranthus			sun	X	X		back of border
Tithonia rotundifolia	4'-6'		mexican sunflower			sun	X	X		
NATIVE ANNUALS - tend to be very aggressive reseeder, plant one to have a colony, good for meadows.										
Collinsia parviflora	.5'-1'		maiden blue-eyed mary			prt/shd	X			dainty, early flowers
Clarkia pulchella		.5'-1.5'	deerhorn clarkia			sun	X			for cottage garden
Gaillardia pulchella	indian blan	1'-1.5'				sun	X	X		Great annual
Impatiens capensis		jewelweed	2'-5'			sun/part	X	X	X	Wild annual, wet!
Cleome [Peritoma] serrulata	rocky mtn beel	3'-6'				sun/part	X	X	X	showy, reseeds
Chamaecrista fasciculata		partidge pea	1'-3'			sun	X	X		great as cover crop.
Oenothera biennis		common evening prim	2'-6'			sun/shd	X	X		short-lived, reseeds
Bidens cernua		nodding bur marigold			.5'-3'	sun	X			bees, reseeds

Flower Color: Bee Vision



Bee vision is focused on shorter wavelength bands, seeing ultraviolet and less red compared to humans.

Caltha palustris, marsh marigold, a VT native, as it appears to humans, above and bees below nectar guides.



Food: Efficient Foraging



As native bees tend to stick to a single flowering species per foraging trip, planting in large swaths of the same species, say six or more of each, ensures efficient foraging and cross-pollination

Food: for Off-Spring

- Most native bees load nests with food for the early stages of their young by processing of nectar and pollen they have collected.
- Honeybees produce honey for feeding themselves and their brood. Honey is produced primarily from nectar.

Bumblebee colony with collected pollen and nectar for brood.

Food: for Off-Spring

- Butterflies, moths and many beetles and the specialist bees, require host plants, generally native/naturalized perennials, shrubs and trees for egg-laying and larval food.
- Most butterflies and moths are specialists.



Monarch larvae on *Asclepias*, *Milkweed*, host plant



Karner Blue Butterfly, endangered, on *Lupinus perennis*, host plant, cannot use the western *Lupinus polyphyllus*

Food: Diversity and Quantity

XERCES SUGGESTS:

- To support a diversity of pollinators, supply a diversity of flowering plants, though **10 carefully selected species can be enough.**
- Some research has shown a **leveling-off of diversity of pollinators with over 20 plant species.**
- Plant in **groups of at least 6, ideally 8,** of the same species. If limited space, go for diversity over quantity.
- Select **3 species** flowering from each time slot, **early, mid and late season.**
- Include plants that serve as **larval host plants.**
- Provide at least **one native bunching grass** for nesting.
- **That's 10 – 20 native species with varying color, shape, flowering time.**

So, that's at least 6 plants each of 10 species: 60 plants
@ 4 s.f. /plant = **240 s.f. as a minimum** ideal pollinator garden.

Selecting Plants



<http://www.wildflower.org/>

- Lady Bird Johnson **Wildflower Center**
 - Click menu (three lines on top right) and select ***Plant Information***.
 - Click on arrow on right to expand options. Click on ***Plant Lists***.
 - Scroll down page and click ***Plants for Pollinators***, select ***Special Value to Native Bees***.
 - Will arrive at Special Collections: ***Special Value to Native Bees***.
 - On left panel, go to ***Narrow Your Search***.
 - Select your state.
 - ***General Appearance***: Select ***Herb*** and ***Lifespan: Perennials***.
 - ***(can repeat this process for grasses, trees, shrubs, soils, sun/shade, can select flower colors, heights, etc!!)***
 - Click ***Narrow Your Search***.
 - VOILA!! A great list pre-selected for your state by the great Xerces Society for Invertebrate Conservation.

Selecting Plants



COMBINATION SEARCH

Special Value to Native Bees

Recognized by pollination ecologists as attracting large numbers of native bees. This information was provided by the Pollinator Program at **The Xerces Society for Invertebrate Conservation**.

147 Results: [10](#) [25](#) [50](#) [100](#) per page

[<< previous](#) [1](#) [2](#) [3](#) [4](#) ... [15](#) [next >>](#)

scientific name

common name(s)

image gallery

Achillea millefolium

Common Yarrow
Western Yarrow
Yarrow
Milfoil



[57 images](#)

NARROW YOUR SEARCH

SELECT STATE OR PROVINCE

Vermont [v](#)

GENERAL APPEARANCE

Herb [v](#)

LIFESPAN

Perennial [v](#)

[Narrow your search](#)

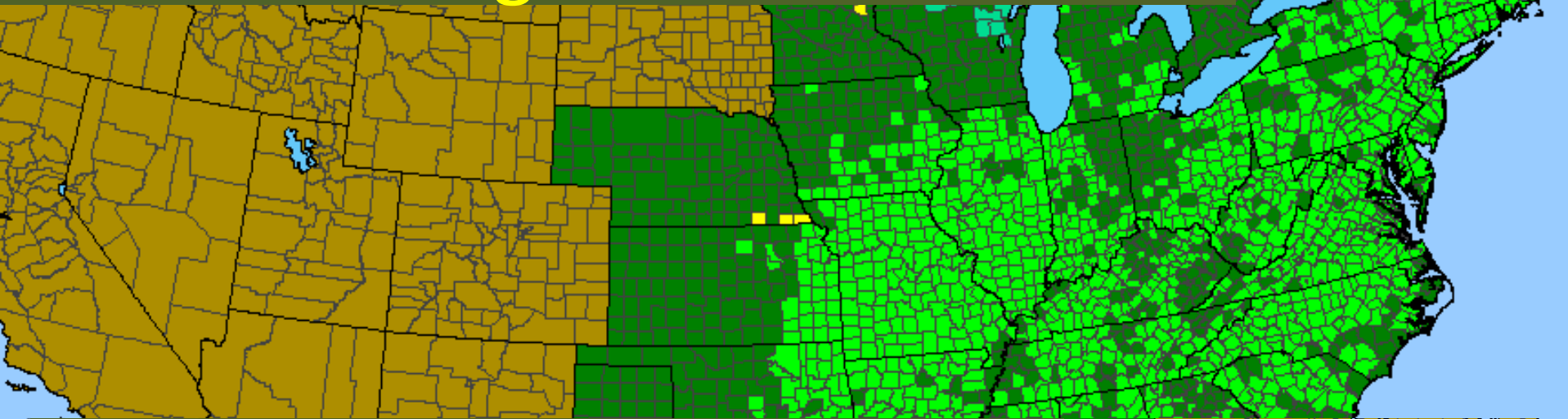
LIGHT REQUIREMENT

Sun - 6 or more hrs

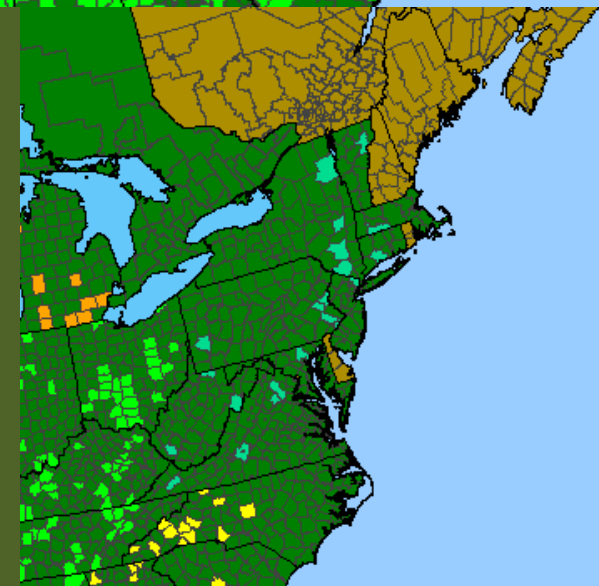
Part shade - 2 to 6 hrs

Shade - 2 hrs or less

Selecting Plants: Checking Native Status



- Web-search **BONAP NAPA**
- **(Biota of North America Program, North American Plant Atlas)**
- Select “*Alphabetically by Genus*”.
- Scroll down to select the Genus, click and select by species.
 - Dark green = **Is native in the country, not necessarily the state.**
 - Light green = Native and not rare at county level.
 - Yellow = Rare at county level.
 - Teal = Introduced and naturalized at county level.



This search is for *Pycnanthemum tenuifolium*.

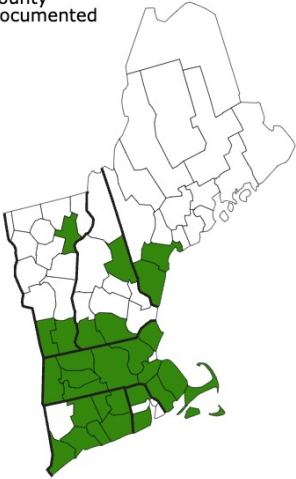
Echinacea purpurea

New England distribution

Adapted from [BONAP](#) data

Native

■ county documented



[i](#) about the labels on this map

Found this plant? Take a photo and post a sighting.

Threatened, Rare, Extirpated Native Plants

Should avoid selling unless you have access to local ecotype seeds as considered a threat to existing population.

Asclepias tuberosa – butterfly milkweed



Copyright: various copyright holders. To reuse an image, please click it to see who you will need to contact.

Conservation status

Exact status definitions can vary from state to state. For details, please check with your state.

Maine [extirpated](#) (S-rank: SX), potentially [extirpated](#) (code: PE)

Rhode Island [rare](#) (S-rank: S2), concern (code: C)

Vermont [historical](#) (S-rank: SH), [threatened](#) (code: T)

ssp. tuberosa

Massachusetts fairly widespread (S-rank: S4)

New Hampshire extremely [rare](#) (S-rank: S1), [endangered](#) (code: E)

Ideally Plants Should Be Grown from Local Ecotype Seeds

Access to local ecotype seeds in the NE US is minimal, relative to other regions of the US, but interest is growing!! Though there hasn't been a lot of research, many have noted how **plants of the same species from different regions can have slightly to considerably different flowering times which may not mesh with the phenology (timing) of the local pollinators**, due to a long co-evolutionary history.

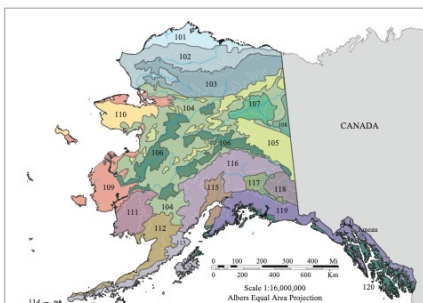
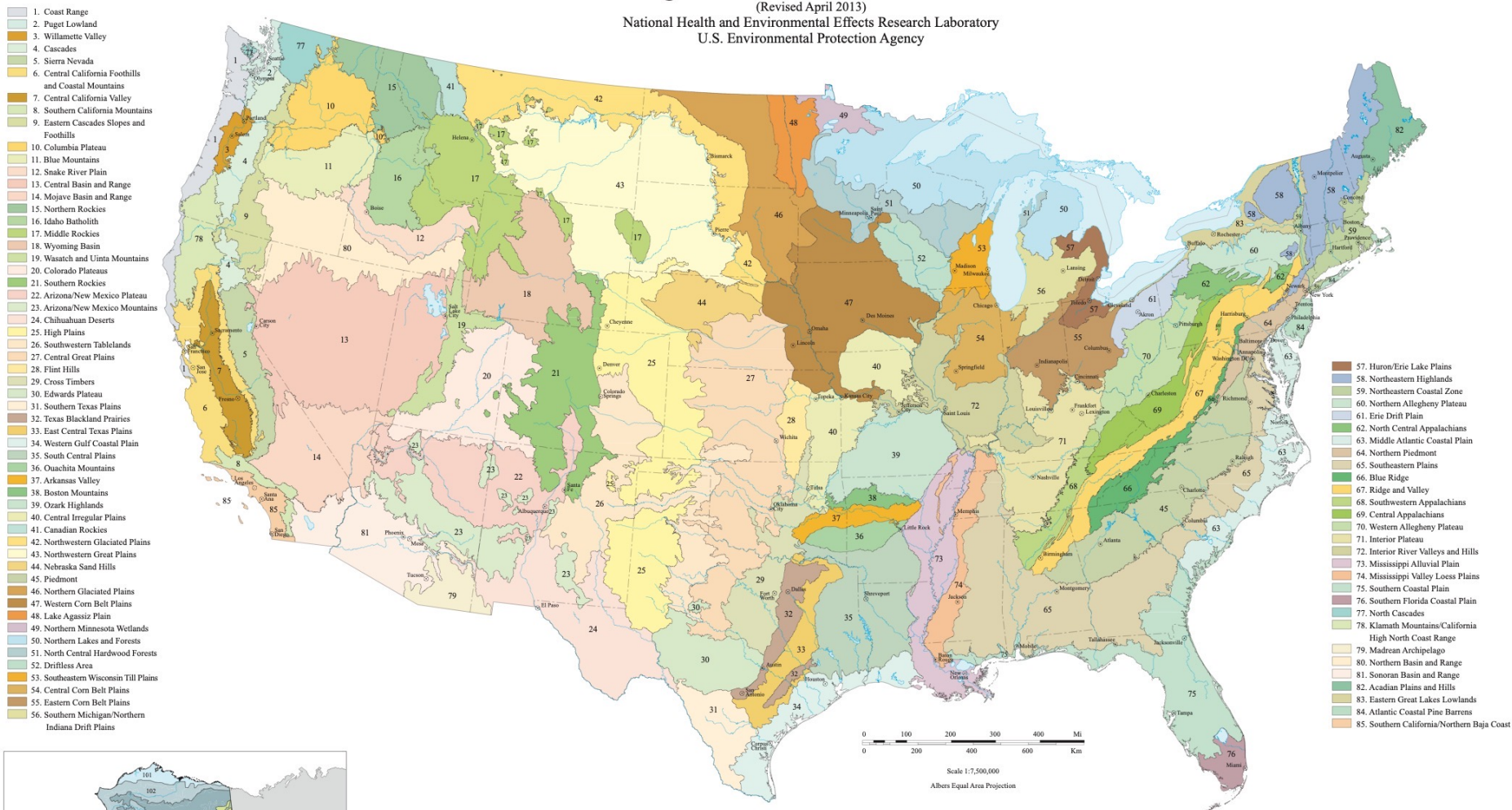


Wild-collected local ecotype
Chamaenerion angustifolium,
Fireweed

Level III Ecoregions of the Continental United States

(Revised April 2013)

National Health and Environmental Effects Research Laboratory
U.S. Environmental Protection Agency



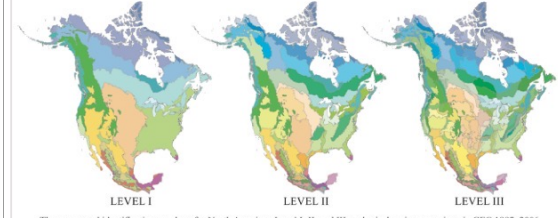
Ecoregions are areas where ecosystems (and the type, quality, and quantity of environmental resources) are generally similar. This ecoregion framework is derived from Omernik (1987) and from mapping done in collaboration with U.S. EPA regional offices, other Federal agencies, state resource management agencies, and neighboring North American countries (Omernik and Griffith 2014). Designed to serve as a spatial framework for the research, assessment, and monitoring of ecosystems and ecosystem components, ecoregions denote areas of similarity in the mosaic of biotic, abiotic, terrestrial, and aquatic ecosystem components, with humans considered as part of the biota. These ecoregions have been used to develop biological criteria and water quality standards, set management goals for nonpoint source pollution, assess land cover trends, report on ecosystem carbon sequestration, and frame wildlife conservation research, among other applications.

Ecoregions can be identified by analyzing the patterns and composition of biotic and abiotic phenomena that affect or reflect differences in ecosystem quality and integrity (Omernik 1987, 1995). These phenomena include geology, physiography, vegetation, climate, soils, land use, wildlife, and hydrology. The relative importance of each characteristic varies from one ecological region to another regardless of the hierarchical level. A Roman numeral classification scheme has been adopted for different levels of ecological regions. Level I is the coarsest level, dividing North America into 15 ecological regions; at Level II the continent is subdivided into 50 classes (CEC 1997, 2006). Level III, shown here, has 165 ecoregions in the continental U.S. For the conterminous United States, the ecoregions have been further subdivided to 967 Level IV ecoregions. Details about the ecoregions or their applications are explained in reports and publications from the state and regional projects (e.g., Byers et al. 1996, 2003; Chapman et al. 2001, 2006; Gallant et al. 1998, 1995; Griffith et al. 2004, 2009, 2014; McGinnis et al. 2002; Omernik, 2004; Omernik et al. 2000; Thorton et al. 2003; Wilen et al. 2011; and Woods et al. 1996, 2002, 2004). For additional information, contact James M. Omernik, USGS, c/o U.S. EPA, 200 SW 35th Street, Corvallis, OR 97331; phone (541) 754-4458, email omernik.james@epa.gov, or Glenn Griffith, USGS, c/o US EPA, 200 SW 35th Street, Corvallis, OR 97333; phone (541) 754-4465, email ggriffith@usgs.gov.

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- 57. Huron/Erie Lake Plains
- 58. Northeastern Highlands
- 59. Northeastern Coastal Zone
- 60. Northern Allegheny Plateau
- 61. Erie Drift Plain
- 62. North Central Appalachians
- 63. Middle Atlantic Coastal Plain
- 64. Northern Piedmont
- 65. Southeastern Plains
- 66. Blue Ridge
- 67. Ridge and Valley
- 68. Southwestern Appalachians
- 69. Central Appalachians
- 70. Western Allegheny Plateau
- 71. Interior Plateau
- 72. Interior River Valleys and Hills
- 73. Mississippi Alluvial Plain
- 74. Mississippi Valley Loss Plains
- 75. Southern Coastal Plain
- 76. Southern Florida Coastal Plain
- 77. North Cascades
- 78. Klamath Mountains/California High North Coast Range
- 79. Madren Archipelago
- 80. Northern Basin and Range
- 81. Sonoran Basin and Range
- 82. Acadian Plains and Hills
- 83. Eastern Great Lakes Lowlands
- 84. Atlantic Coastal Pine Barrens
- 85. Southern California/Northern Baja Coast

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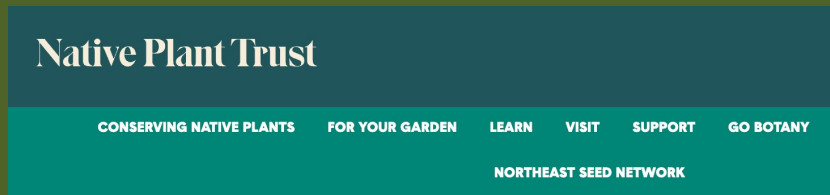
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Some NE Efforts at Local Ecotype



Northeast Wild Seed Collectors

Collecting local-ecotype wild seeds of New England and New York states.

Some Sources of Wildflower Seeds



PRAIRIE MOON
NURSERY™

Winona, MN



N. Clarendon, VT



Frenchtown, NJ



Gooding, ID



Norwell, MA



North Yarmouth, ME



Downers Grove, IL



Fallbrook, CA

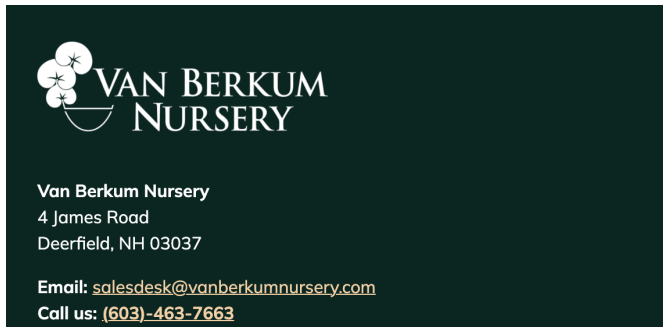


Upton, KY



Germany/Louisville, KY

Some Sources of Wildflower Plugs



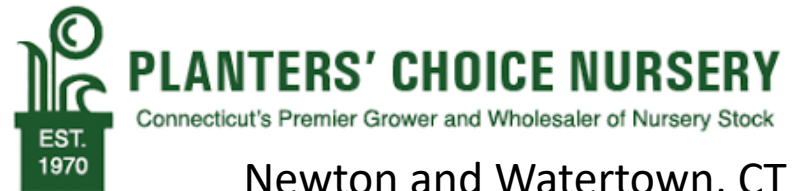
Deerfield, NH



Landenberg, PA



South Hadley, MA



Newton and Watertown, CT



Dayton, ME



Woodstown, NJ



Gill, Ma

Wild Collecting Seeds Protocol

Copied from Northeast Wild Seed Collectors Website

- **Positively identify the plants.** Refer to a trusted dichotomous plant key such as:
 - Newcomb, Lawrence, *Newcomb's Wildflower Guide*, New York, NY, Little, Brown and Company, printed book.
 - Go Botany (Native Plant Trust): <https://gobotany.nativeplanttrust.org/>
 - OR other sites with great plant identification descriptions such as: Illinois Wildflower (not our eco-region, so may not have all the species): <https://www.illinoiswildflowers.info/>

Wild Collecting Seeds Protocol, cont.

- **Ensure the plant is not rare or endangered** in your county. It is a crime to collect such, generally requiring special permits, etc. Biota of North America Program (BONAP) – North America Plant Atlas (NAPA). Or Go Botany!
- **If intending for local ecotype, ensure these plants are indeed wild**, not garden plants, potentially brought from a different eco-region and planted; perhaps the landowner can assist.

Wild Collecting Seeds Protocol, cont.

- **Ensure there are no cultivars** of this (these) species growing **within 1600 feet** (about a $\frac{1}{4}$ mile). I know, this will be nearly impossible....
- If the plants are on **someone else's property**, **get permission** in writing, to observe/photograph and collect seeds. Do not collect seeds on Federal or State lands; it is generally a crime.

Wild Collecting Seeds Protocol, cont.

- **Collect seeds**, not plants. Follow suggestions in the seed collecting section of the plant species, collecting only ripe seeds.
- **Collect a few seeds from each of at least 10, but ideally 50 – 100 plants**, of same species for greater genetic diversity.
- **Do not take more than 5%**, (can be up to 25% if plant species is common) of the available seeds.
- If possible **clean seeds by rubbing gently on a screen** to protect from mold and rot.

Cleaning Wild Collected Seeds



Gold Panning Sifting Pan Set



Winnow Wizard,
Luttera Enterprises, LLC

Wild Collecting Seeds Protocol, cont.

- Place seeds in a **paper envelope or bag and let air dry for several weeks at room temperature.** First label the envelope or bag clearly with:
 - Plant name as Genus and Species.
 - Date of collection.
 - Location of collection and name of landowner.
 - Number of plants seeds were collected from.
 - Collector's name, mail address, email address.

Cold Moist Stratification



Simulate seeds overwintering outside:

1. Mix potting mix with equal parts fine vermiculite or sand, moisten, spoon small amount into freezer bag, add seeds, store in fridge for suggested amount of time.

Cold Moist Stratification



OR... simulate seeds overwintering outside:

2. Seed trays or pots in late fall, set outside, covered with chicken wire to keep out wildlife, until see germination in spring.

Seeding in the Spring

after cold moist stratification, if suggested



Germinating

Seed into tube trays w/20 tubes, 1000 seeds /tray.
At least two sources for each species.



Germinating

Never fails to fill me awe!



Transplanting and Labeling

about 14,000 singles in 66 trays, 100 plug trays.



Pots and Trays



T.O. Plastic Star
21 count for singles



T.O. Plastic Star
58 count for ground cover
plugs



Selling On-Farm



25% of total 2023 pollinator plants sales were direct, on-farm sales. Seeing a huge increase of folks driving a distance, more than an hour to meet in person and shop.

Selling On-Farm

Asclepias syriaca

Common Milkweed Perennial River Berry Farm



May June July Aug. Sept.



Height: 3'-8'

Hardy: 3-9

Soils: Medium - Moist

Common Milkweed is very important as a host plant for our beloved Monarch butterfly. Plant this in an area where you can let it grow wild and reseed.

Native to Vermont.

The farm stand and greenhouse are “self-serve” from July 5th on so signage is critical.

Selling On-Farm

Pollinator Garden Ideas

Handout of Plant Lists is on checkout table.
HELP YOURSELVES!!

Pollinator Garden Collection For Sun to Part Sun, Dry to Moist

Early Flowering: Penstemon digitalis (Beardtongue), Echinacea purpurea (Purple Coneflower), Baptisia australis (Blue Wild Indigo).
Mid-Season Flowering: Agastache foeniculum (Anise Hyssop), Monarda mollis (Wild Bergamot), Phlox paniculata (Mocasin) (Slender Mountain Mint), Liatris spicata (Blazing Star).
Late Flowering: Vernonia noveboracensis (New York Ironweed), Helianthus autumnalis (Elephant's Ears), Symphyotrichum novae-angliae (New England Aster).
Native Grass: Schizanthus scoparius (Lime Bluestem).

An ideal pollinator garden would include at least 9 species of flowering perennials planted in swaths of 4 of each species, with 3 species flowering early, 3 mid and 3 late into a native grass for nesting sites and materials.



Pollinator/Rain Garden Collection For Sun to Part Sun, Moist to Wet

Early Flowering: Rhabdovia parviflora (Yellow Coneflower), Penstemon digitalis (Beardtongue).
Mid-Season Flowering: Asclepias incarnata (Swamp Milkweed), Rudbeckia hirta (Black-eyed Susan), Eutrochium maculatum (Spotted Joe-Pye Weed), Equisetum perfoliatum (Boneset), Liatris spicata (Blazing Star).
Late Flowering: Lobelia cardinalis (Cardinal Flower), Symphyotrichum paniculatum (Swamp Aster), Vernonia noveboracensis (New York Ironweed).
Native Grass: Phlox virginiana (Switch Grass).

An ideal pollinator garden would include at least 9 species of flowering perennials planted in swaths of 4 of each species, with 3 species flowering early, 3 mid and 3 late into a native grass for nesting sites and materials.



Naturalizing Pollinator Collection For Sun to Part Sun, Dry to Moist (Naturalizing means lots of self-seeding and spreading.)

Early Flowering: Erigeron philadelphicus (Robin's Plantain), Phlox pilularis (Zoff-Haus), Thalictrum flavum (Oxeye).
Mid-Season Flowering: Pycnanthemum terifolium (Slender Mountain Mint), Rudbeckia hirta (Common Milkweed), Equisetum perfoliatum (Boneset), Monarda mollis (Wild Bergamot).
Late Flowering: Solidago species (Snowy Goldenrod), Symphyotrichum ericoides (Heath Aster), Rudbeckia laciniata (Green-headed Coneflower).
Native Grass: Andropogon gerardii (Big Bluestem).

An ideal pollinator garden would include at least 9 species of flowering perennials planted in swaths of 4 of each species, with 3 species flowering early, 3 mid and 3 late into a native grass for nesting sites and materials.



Naturalizing Pollinator Collection For Shade to Part, Dry to Moist (Naturalizing means lots of self-seeding and spreading.)

Early Flowering: Penstemon digitalis (Smooth White Beard-tongue), Phlox pilularis (Zoff-Haus), Aquilegia canadensis (Columbian).
Mid-Season Flowering: Lysichiton micropetalum (Big Leaf Aster), Anemone hepatica (Liver Leaf), Galium aparine (Spice Sweet Woodruff), Juncus sp. (Juncus), Equisetum perfoliatum (Boneset).
Late Flowering: Chamaenerion album (White Turk's-head), Solidago canadensis (Blue Goldenrod), Symphyotrichum concoloratum (Common Blue Wood Aster).
Native Sedge: Carex lasiocarpa (Tufted Hair Grass).

An ideal pollinator garden would include at least 9 species of flowering perennials planted in swaths of 4 of each species, with 3 species flowering early, 3 mid and 3 late into a native grass for nesting sites and materials.



Monarch Garden Collection For Sun to Part Sun, Dry to Moist (Naturalizing means lots of self-seeding and spreading.)

Early Flowering: Penstemon digitalis (Beardtongue), Echinacea purpurea (Purple Coneflower).
Mid-Season Flowering: Asclepias incarnata (Swamp Milkweed), Asclepias syriaca (Common Milkweed), Eutrochium purpureum (Spotted Joe-Pye Weed), Monarda mollis (Wild Bergamot), Agastache foeniculum (Anise Hyssop).
Late Flowering: Vernonia noveboracensis (New York Ironweed), Equisetum perfoliatum (Common Boneset), Symphyotrichum novae-angliae (New England Aster), Solidago canadensis (Blue Stem Goldenrod).



Annuals for Pollinators For Sun to Part Sun, Dry to Moist

Many of our common annual flowers provide great sources of nectar and pollen for the pollinators throughout their long-blooming season.

GENUS	COMMON NAME
Carthamus	Red Kangaroo
Centaurea	Butterfly Buttons
Cleome	Spider Flowers
Dahlia	Dahlia
Diarrhiza	Sunflowers
Helianthus	Sunflower
Lantana	Aluminum
Lobelia	Fornicator, Purshana
Portulaca	Moss-rose
Tigridis	Meadow Gold
Tithonia	Mexican Sunflower
Zinnia	Anna



Selling On-Farm - Handout

1. Pollinator Garden Collection for Sun to Part Sun, Dry to Moist

Early Flowering: *Penstemon digitalis* (Beardtongue), *Echinacea purpurea* (Purple Coneflower), *Baptisia australis* (Blue Wild Indigo).

Mid-Season Flowering: *Agastache foeniculum* (Anise Hyssop), *Monarda fistulosa* (Wild Bergamot), *Pycnanthemum tenuifolium* (Slender Mountain Mint), *Liatris spicata* (Blazing Star) or *Liatris aspera* (Rough Blazing Star).

Late Flowering: *Vernonia noveboracensis* (New York Ironweed), *Helenium autumnale* (Sneezeweed), *Symphiotrichum novae-angliae* (New England Aster).

Native Grass: *Schizachrium scoparium* (Little Bluestem).

2. Pollinator/Rain Garden Collection for Sun to Part Sun, Moist to Wet

Early Flowering: *Tradescantia ohiensis* (Ohio Spiderwort), *Penstemon digitalis* (Beardtongue), *Mimulus ringens* (Monkey Flower).

Mid-Season Flowering: *Asclepias incarnata* (Swamp Milkweed), *Doellingeria umbellata* (Flat-Topped Aster), *Eutrochium maculatum* (Spotted Joe-Pye Weed), *Eupatorium perfoliatum* (Boneset).

Late Flowering: *Monarda didyma* (Beebalm), *Symphiotrichum puniceum* (Swamp Aster), *Rudbeckia laciniata* (Green-Headed Coneflower).

Native Grass: *Panicum virginianum* (Switch Grass).

3. Naturalizing Pollinator Garden Collection for Sun to Part Sun, Dry to Moist

Early Flowering: *Erigeron pulchellus* (Robin's Plantain), *Prunella vulgaris* ssp *lanceolata* (Lance Self-Heal), *Tradescantia ohiensis* (Ohio Spiderwort).

Mid-Season Flowering: *Pycnanthemum tenuifolium* (Slender Mountain Mint), *Asclepias syriaca* (Common Milkweed), *Eupatorium perfoliatum* (Boneset), *Monarda fistulosa* (Wild Bergamot).

Late Flowering: *Solidago speciosa* (Showy Goldenrod), *Symphiotrichum ericoides* (Heath Aster), *Rudbeckia laciniata* (Green-Headed Coneflower).

Native Grass: *Andropogon gerardii* (Big Bluestem).

4. Naturalizing Pollinator Garden Collection for Shade to Part Shade, Dry to Moist

Early Flowering: *Penstemon digitalis* (Beardtongue), *Prunella vulgaris* ssp *lanceolata* (Lance Self-Heal), *Aquilegia canadensis* (Columbine).

Mid-Season Flowering: *Campanula rotundifolia* (Bluebell Bellflower), *Aruncus dioicus* (Goat's Beard), *Eutrochium purpureum* (Sweet Joe-Pye Weed), *Eupatorium perfoliatum* (Boneset).

Late Flowering: *Chelone glabra* (White Turtlehead), *Solidago caesia* (Blue Stem Goldenrod), *Symphiotrichum cordifolium* (Common Blue Wood Aster).

Native Grass: *Deschampsia cespitosa* (Tufted Hair Grass)

5. Monarch Garden Collection

Early Flowering: *Penstemon digitalis* (Beardtongue), *Echinacea purpurea* (Purple Coneflower).

Mid-Season Flowering: *Asclepias incarnata* (Swamp Milkweed), *Asclepias syriaca* (Common Milkweed), *Eutrochium purpureum* (Sweet Joe-Pye Weed), *Monarda fistulosa* (Wild Bergamot), *Chamaenerion angustifolium* (Fireweed).

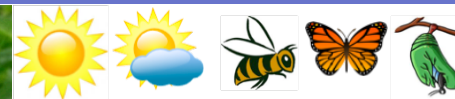
Late Flowering: *Rudbeckia hirta* (Black-Eyed Susan), *Eupatorium perfoliatum* (Common Boneset), *Symphiotrichum novae-angliae* (New England Aster), *Solidago caesia* (Blue Stem Goldenrod).

Selling on-Farm: Collections

Rain Garden for Sun-Part/Moist-Wet



Sold as whole tray of 21 plants:
2 plants of each wildflower and
1 native grass.



Height: 2' -7'

Hardy: 3 - 8

Soils: Moist to Wet


Early Flowering: Ohio Spiderwort, Beardtongue, Monkey Flower.


Mid-Flowering: Swamp Milkweed, Flat-Topped Aster, Spotted Joe-Pye Weed, Boneset.

Late Flowering: Beebalm, Swamp Aster, Green-Headed Coneflower.


Native Grass: Switchgrass.

Selling On-Line Northeast Pollinator Plants

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<https://www.northeastpollinator.com> **Create a Landscape That Supports Pollinators!**

Selling On-Line

Northeast Pollinator Plants



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Lots of information on the why, how to plant habitat, links to more information and a little about us on the web-site. Folks do really like to know who they're buying from, I'm told.

Website platform is Shopify. I've been super impressed with it, but don't really have anything else to compare it to...





Northeast Pollinator Plants

2. Pollinator/Rain Garden Collection for Sun to Part Sun, Moist to Wet

\$ 115.29

21 plants for a 84 s.f. garden, 42 plants for a 168 s.f. garden, 63 plants for a 252 s.f. garden, 84 plants for a 336 s.f. garden. You can order multiples after adding to your cart.

21 plants ▾

Sold Out

- *We ship only to the New England and New York states. If you live near Fairfax, VT, consider buying at our farm, [River Berry Farm](#).*
- *Shipping will be in the order received. Please check the [Home Page](#) for updated expected ship date.*
- *Shipping free for Garden Collections.*
- *Plants are delivered in a biodegradable wood fiber pot, 2.75" diameter by 3.5" deep.*
- *Please email if you prefer to order/pay by check than on-line, see [Contact Us](#) below.*

Includes 10 long-lasting species of native wildflowers and 1 native grass species selected to provide constant and overlapping flowering for our valued pollinators in a sun-part/moist-wet pollinator/rain garden.

Species to include:

(No substitutions requests please, though substitutions may be necessary if poor germination.)

Early Flowering: Ratibida pinnata (Yellow Coneflower), Penstemon digitalis (Beardtongue).

Mid-Season Flowering: Asclepias incarnata (Swamp Milkweed), Tradescantia ohioensis (Ohio Spiderwort), Eutrochium maculatum (Spotted Joe-Pye Weed), Eupatorium perfoliatum (Boneset), Liatris spicata (Blazing Star).

Late Flowering: Monarda didyma (Beebalm) to be substituted with Lobelia cardinalis (Cardinal Flower) due to poor germination, Symphyotrichum puniceum (Swamp Aster), Vernonia noveboracensis (New York Ironweed).

Native Grass: Panicum virginianum (Switch Grass).



Northeast Pollinator Plants

Asclepias incarnata (Swamp Milkweed)

\$ 5.49

Sold Out

- *We ship only to the New England and New York states. If you live near Fairfax, VT, consider buying at our farm, [River Berry Farm](#).*
- *Shipping will be in the order received. Please check the [Home Page](#) for updated expected ship date. Free shipping for 15 or more plants.*
- *Plants are delivered in a biodegradable wood fiber pot, 2.75" diameter by 3.5" deep.*
- *Please email if you prefer to order/pay by check than on-line, see [Contact Us](#) below.*

Common Name: *Swamp Milkweed*

Attracts: Bees, Butterflies, Larval Host

Use: Garden, Rain Garden, Naturalizing

Light: Full Sun

Hardiness Zone: 3 to 6 [USDA Zone Map](#)

Soils: Moist to Wet

Flower Time: Early July to Mid August

Flower Color: Scarlet Pink

Height: 4'- 5'

Notes: Asclepias incarnata (Swamp milkweed) is tolerant of well-drained soils, very attractive to butterflies, and a nice cut flower.

Host plant of [VT Bee Species of Greatest Conservation Need \(SGCN\)](#):

Agapostemon splendens (*Brown-Winged Striped-Sweat bee*)

Bombus pennsylvanicus (*American Bumble bee*)

Bombus rufocinctus (*Red-Belted Bumble bee*)

Osmia texana (*Texan Mason bee*)

Please note, all species of Asclepias are considered toxic for sheep, cattle and goats. Noted as deer-resistant by UVM.

Native to all of northern to southeastern US: [Biota of North America Program \(BONAP\)](#) – [North American Plant Atlas \(NAPA\)](#).

Selling On-Line

Northeast Pollinator Plants

Featured Items



1. Pollinator Garden Collection for Sun to Part Sun, Dry to Moist

Northeast Pollinator Plants
\$ 115.29



2. Pollinator/Rain Garden Collection for Sun to Part Sun, Moist to Wet

Northeast Pollinator Plants
\$ 115.29



3. Naturalizing Pollinator Garden Collection for Sun to Part Sun, Dry to Moist

Northeast Pollinator Plants
\$ 115.29



4. Naturalizing Pollinator Garden Collection for Shade to Part Shade, Dry to Moist

Northeast Pollinator Plants
\$ 115.29



5. Monarch Garden Collection

Northeast Pollinator Plants
\$ 115.29

- 30% of 2023 sales on-line were collections; over 1/3 of those were the #1 Collection.
- 10% of 2023 sales on-line were groundcovers: *Prunella vulgaris* ssp. *lanceolata*, *Fragaria virginiana*, *Viola sororia*, *Antennaria plantaginifolia*, *Eurybia macrophylla*, and new this year, a grass for native lawn, *Danthonia spicacta*.

60% of 2023 Sales On-Line Were Singles

Biggest Sellers (in order):

- *Echinacea purpurea*
- *Monarda fistulosa*
- *Fragaria virginiana*
- *Vernonia noveboracensis*
- *Penstemon digitalis*
- *Agastache foeniculum*
- *Pycnanthemum tenuifol.*
- *Liatris spicata*
- *Campanula rotundifolia*
- *Baptisia australis*
- *Salvia azurea*
- *Chamaenerion angustif.*
- *Asclepias incarnata*
- *Aquilegia canadensis*

These 14 species represent 20% of the 70 species offered and 40% of on-line sales.
Native to at least part of New England.
Naturalized to at least part of New England (almost half).

Pulling Orders and Shipping Northeast Pollinator Plants



Start taking orders January 1st,
start shipping June 1, ship until end of September.

Shipping: Tape and Skewers takes about 10 minutes/box



UPS picks up on farm. Pack boxes for next day pickup. Cool barn!!
\$8/pickup fee. Shipping averages \$15/2'x1'x1' box, \$8/1'x1'x1' box.
Buy UPS labels through Shopify which provides about 40% savings.

Shipping Room...not complaining!!



Shipping: May 1st – Sept. end
2023- shipped 384 big, 114 small



Ship 30 boxes/day, until catch up with pre-orders which currently is 2-1/2 weeks of craziness in early June. Then calms down to 1-2 days of shipping/week until Sept. end.

Opportunities

- **Local Nurseries/Garden Centers** expand native/naturalized offerings; identifying as pollinator plants and/or seeds (perennials, shrubs, trees) **to retail and landscape design/contractors.**
- **Regional Wholesale Growers** offering plug/pots/bare-root **native/naturalized plants** to enable **regional nurseries** to buy-in plants to grow out instead of adding that cold-moist stratification process to their workload. Ideally offering local ecotype plants, as this expands.
- **Regional Wholesale Growers** offering plug/pots/bare-root plants for **landscape restoration work with NRCS, landscape contractors and others.**
- **Expand Northeast Local Ecotype Seed Offerings. Contact Native Plant Trust-Northeast Seed Network. Work needed:** local ecotype seed collecting efforts with botanists and/or trained volunteers, establish "founder plots", coordinate volunteer collecting in founder plots, seed cleaning, seed storage/packaging, create network for seed availability for retail and wholesale!
- **More On-Line Retail Nurseries..eh??, need more brick and mortar!!**

QUESTIONS

A vibrant garden scene featuring a variety of flowers. In the foreground, there are several purple asters and white daisy-like flowers. The middle ground is dominated by numerous pink coneflowers with dark brown centers. The background is filled with dense green foliage and more flowers, including some yellow ones. The overall scene is a healthy, diverse garden.

Feel free to email me with questions or request for Pollinator Palette sheets at: JaneThyraSorensen@gmail.com or use the “Contact” on Northeast Pollinator Plants website.